

LARGE INVENTORY-SERVICE OPTIMIZATION IN CONFIGURE-TO-ORDER SYSTEMS

ABSTRACT OF THE DISCLOSURE

A manufacturing process is migrated from an existing operation to a
5 configure-to-order (CTO) system. As the CTO operation will eliminate the
“machine-type model” (MTM) inventory of the existing operation, the
emphasis is shifted to the components, or “building blocks”, which will still
follow the build-to-stock scheme, due to their long leadtimes, and hence still
require inventory. The solution involves an inventory-service trade-off of the
10 new CTO system, resulting in performance gains, in terms of reduced
inventory cost and increased service level. Other benefits include better
forecast accuracy through parts commonality and risk-pooling, and increased
customer demand, as orders will no longer be confined within a restricted set
of pre-configured MTMs.